

## REMARKS/ARGUMENTS

Claims 1-4, 6-7, 16, 18 and 20-21 are pending. Claims 1, 16, 18 and 20 have been amended. No new matter has been introduced. Reexamination and reconsideration of the present application is respectfully requested.

### Claim Rejections

Claims 1-4, 6-7, 16, 18 and 20-21 have been rejected under 35 U.S.C. 112 as missing the critical step of culturing or growing the bacterial cells in order to oxidize ammonia to nitrite in the process as claimed. The Applicant respectfully disagrees and re-emphasizes that there is no culturing or growing step required for the invention to work as claimed.

Referring back to a March 20, 2007 Office Action, the Examiner states that "[t]he claims 1, 16, 18 and 20 are missing the critical step of culturing or growing the bacterial cells in order to oxidize ammonia to nitrite in the process as claimed. It is submitted that merely providing or introducing cells fails to achieve the preamble of 'alleviating or preventing the accumulation of ammonia' since no significant bioconversion is expected to occur solely by 'introduction' or 'provision.'" (emphasis added). The Examiner appears to rely on MPEP 2172.01 which provides that "[a] claim can be rejected as incomplete if it omits essential elements, steps or necessary structural cooperative relationships of elements, such omission amounting to a gap between the elements, steps or necessary structural connections."

A "critical limitation" is customarily understood as "one essential either to the operativeness of the invention or to the patentability of the claims." Storchheim v. Daugherty, 410 F.2d 1393, 1396, 56 C.C.P.A. 1147, 1150 (C.C.P.A. 1969); *see also* Black's Law Dictionary (7th ed. 1999) (same definition). As the maintained rejection is made under 35 U.S.C. 112, it is clear that the Examiner is arguing that the culturing or growing step is essential to the operativeness of the invention. MPEP 2172.01 cites to In re Collier, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968), a case in which the claim at issue was held to be incomplete because a portion of the claim language recited structure which would result from the performance of future acts, and therefore did not amount to a positive structural limitation. By contrast, in the present application, all of the necessary positive limitations required to perform the function of alleviating and preventing the accumulation of ammonia are recited in each of claims 1, 16, 18 and 20. Specifically, "introducing into the aquarium an amount of the bacterial strain sufficient

to alleviate or prevent the accumulation of ammonia in the aquarium,” will be enough to alleviate or prevent the accumulation of ammonia. There is no bioconversion required for the invention to work as claimed because a sufficient amount of the bacterial strain is introduced into the aquarium, and the Applicant’s experimental work has shown as such.

MPEP 2174 provides that “[i]f the specification discloses that a particular feature or element is critical or essential to the practice of the invention, failure to recite or include that particular feature or element in the claims would support a rejection that those claims are not supported by an enabling disclosure. *In re Mayhew*, 188 USPQ 356 (CCPA 1976). See also MPEP 2173.05(l). Nowhere in the specification of the application has Applicant disclosed that a growing or culturing step is critical or essential for the operativeness of the invention as claimed.

However, to further prosecution, the Applicant has amended the claims to clarify the invention and to make clear that the claimed bacterial strain is provided in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium and that the sufficient amount is introduced into the aquarium.

The Applicant previously submitted the attached Exhibits to show evidence of operativeness but the Examiner deemed the data insufficient as not showing enough facts and not being in declaration form. According to MPEP 2107.02, “[w]hen the operativeness of any process would be deemed unlikely by one of ordinary skill in the art, it is not improper for the examiner to call for evidence of operativeness.” citing *In re Pottier*, 376 F.2d 328, 330 (CCPA 1967). In this case, the Examiner has not established that one of ordinary skill in the art would deem the invention inoperable as claimed. In fact, the Applicant attests that it has used and experimented with the invention as claimed, without a culturing or growing step. As such, “it is clearly improper for the examiner to make a demand for further test data, which as evidence would be essentially redundant and would seem to serve for nothing except perhaps to unduly burden the applicant.” *In re Isaacs*, 347 F.2d 887, 890, 146 USPQ 193, 196 (CCPA 1965).

The Applicant submits that the data from Exhibit 1 would be apparent to one of ordinary skill in the art as showing nitrification upon introduction and that the conditions under which the data was obtained are shown in Exhibit 2 and are sufficiently detailed that one of ordinary skill in the art would understand how to perform the invention as claimed. Furthermore, it is improper and not necessary to require the Applicant to provide further details concerning the conditions in which the claimed bacterial strain was cultured as such conditions are not required

by the claims. However, to address the Examiner's concerns regarding the identity of the tested strain and submitted data/evidence, the Applicant submits herewith a declaration that attests to the operativeness of the claimed invention. The last chart of Exhibit 1 has been further included to show the summary of data obtained from the first three charts in Exhibit 1 (demonstrating that nitrification begins within minutes of introduction of bacteria and the entire nitrification process is completed in less than one day).

In light of the above considerations, Applicants respectfully submit that the amended claims, together with the submitted evidence and declaration, now meet the requirements of 35 U.S.C. 112.

Conclusion

The Applicant respectfully requests the allowance of the claims which are now pending. If the Examiner would like to discuss any further matters relating to this application, the undersigned attorney can be reached at the Los Angeles telephone number (213) 488-7100.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975 (ref. 81289-294309). The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

Date: 9/10/2007

By:   
Carolyn S. Lu  
Registration No. 56,817  
Attorney For Applicant(s)

725 South Figueroa Street, Suite 2800  
Los Angeles, CA 90017-5406  
Telephone: (213) 488-7100  
Facsimile: (213) 629-1033

Attachments: Declaration and Exhibits 1-2